

REMARKS

By this Amendment, Applicants propose to amend claims 1, 3-11, 13, 15, 18-26, 28, and 30-46. Support for the amendments can be found in the specification at, for example, p. 2, line 33 to p. 3, line 13; p. 4, ll. 8-13; p. 8, ll. 15-27; and p. 12, ll. 15-35, and Figs. 4 and 6. Claims 1-13, 15, and 17-46 are pending in this application.

In the Final Office Action,¹ the Examiner rejected claims 1, 13, 15, and 28 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement; rejected claims 1, 3-13, 15, 18-28, and 30-46 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,835,953 to Ohran ("*Ohran*") in view of U.S. Patent No. 6,880,102 to Bridge ("*Bridge*"); and rejected claims 2, 17, and 29 under 35 U.S.C. § 103(a) as being unpatentable over *Ohran* in view of *Bridge* and U.S. Patent No. 6,269,382 to Cabrera et al. ("*Cabrera*").

I. **Rejection under 35 U.S.C. § 112, First Paragraph**

Applicants respectfully traverse the rejection of claims 1, 13, 15, and 28 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

The Examiner alleges that "locking the data object in the first storage location by storing the ID in a first lock object," as previously recited in claim 1, is not described in the specification. Final Office Action, p 3. Furthermore, the Examiner alleges that "[n]o

¹ The Final Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Final Office Action.

where in the specification, it discloses whether data object is locked by either checking P-lock or T-lock." Final Office Action, p. 3. These allegations are incorrect. Nevertheless, Applicants have amended the claims to delete the claim recitation at issue. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of claims 1, 13, 15, and 28 under 35 U.S.C. § 112, first paragraph.

II. Rejection of Claims 1, 3-13, 15, 18-28, and 30-46 under 35 U.S.C. § 103(a)

Applicants respectfully traverse the rejection of claims 1-13, 15, 18-28, and 30-46 as being unpatentable over *Ohran* in view of *Bridge*. A *prima facie* case of obviousness has not been established.

"The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious." M.P.E.P. § 2141(III). "[T]he framework for objective analysis for determining obviousness under 35 U.S.C. 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). . . . The factual inquiries . . . are as follows:

(A) [Determining the scope and content of the prior art;]

(B) Ascertaining the differences between the claimed invention and the prior art;

and

(C) Resolving the level of ordinary skill in the pertinent art."

M.P.E.P. § 2141(II). "Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art." M.P.E.P. § 2141(III).

Independent claim 1 recites a method for moving data objects comprising, for example, "determining whether an identifier (ID) of the data object is stored in a transactional lock object," "when the ID is not stored in the transactional lock object, storing the ID in the transactional lock object," "determining whether the ID is stored in a permanent lock object," and "when the ID is not stored in the permanent lock object, storing the ID in the permanent lock object."

The Examiner alleges that a snapshot map of *Ohran* corresponds to the claimed "transactional lock object" and that a backup map of *Ohran* corresponds to the claimed "permanent lock object." Final Office Action, p. 5. Even assuming this is correct, which it is not, *Ohran* fails to teach or suggest at least the above-quoted steps of claim 1.

Ohran discloses that "[t]he snapshot map is used to store an indication of those data blocks that have had new data stored therein since the snapshot was taken." *Ohran*, col. 18, ll. 11-13. *Ohran* further discloses that "[w]hen a storage location has new data written in it, the entry for the storage location may then be set." *Ohran*, col. 13, ll. 24-26. Therefore, *Ohran* discloses that, when a new data is written, an indication of the new data is set in snapshot map. However, *Ohran* fails to teach or suggest first determining whether an indication of the new data is already stored in the snapshot map, and, when the indication is not already stored in the snapshot map, storing the indication in the snapshot map. Accordingly, *Ohran* fails to teach or suggest "determining whether an identifier (ID) of the data object is stored in a transaction lock object" and "when the ID is not stored in the transactional lock object, storing the ID in the transaction lock object," as recited in claim 1.

Furthermore, *Ohran* discloses that "a map similar to backup map 48 may be used" as a "mechanism that tracks and identifies storage locations of a mass storage device that have new data stored therein after a particular point in time." *Ohran*, col. 14, ll. 18-21. *Ohran* further discloses that "[b]ackup map 48 may comprise a boolean entry for each storage location on mass storage device 20. When a storage location has new data written in it, the [boolean] entry for the storage location [in backup map 48] may be set." *Ohran*, col. 13, ll. 22-26. Therefore, *Ohran* discloses that, when a new data is written to a storage location, a boolean entry for the storage location in the backup map is set. However, *Ohran* fails to teach or suggest first determining whether the boolean entry for the storage location of the new data is already set in the backup map, and, when the boolean entry is not already set in the backup map, setting the boolean entry in the backup map. Accordingly, *Ohran* fails to teach or suggest "determining whether the ID is stored in a permanent lock object" and "when the ID is not stored in the permanent lock object, storing the ID in the permanent lock object," as recited in claim 1.

Moreover, *Ohran* teaches away from the claimed steps of "determining whether an identifier (ID) of the data object is stored in a transactional lock object" and "determining whether the ID is stored in a permanent lock object," as recited in claim 1. *Ohran* discloses that "if a single record . . . was changed ten times . . . , certain prior art systems would send ten changes to the backup storage device. The present invention, however, simply sends the last change that was made . . . to reduce[] the amount of data sent to the backup device." *Ohran*, col. 12, ll. 16-23. Therefore, in *Ohran*, an indication of the latest change to a storage location would be stored in a (snapshot or

backup) map regardless of whether the map already stores an indication of any previous change to the storage location. For at least this additional reason, *Ohran* fails to teach or suggest "determining whether an identifier (ID) of the data object is stored in a transactional lock object" and "determining whether the ID is stored in a permanent lock object," as recited in claim 1.

Bridge discloses that "data may have to be locked during the move." *Bridge*, col. 2, ll. 15-16. However, *Bridge* does not disclose a mechanism for locking data and is completely silent with respect to any "lock objects." Since *Bridge* is silent with respect to a "transactional lock object" and "permanent lock object," *Bridge* fails to teach or suggest "determining whether an identifier (ID) of the data object is stored in a transactional lock object," "when the ID is not stored in the transactional lock object, storing the ID in the transactional lock object," "determining whether the ID is stored in a permanent lock object," and "when the ID is not stored in the permanent lock object, storing the ID in the permanent lock object," as recited in claim 1. *Bridge* thus fails to cure the deficiencies of *Ohran*.

For at least the foregoing reasons, the scope and content of the prior art have not been properly determined, and the differences between the prior art and claim 1 have not been properly ascertained. Moreover, the Examiner has not identified any factors that would motivate one of ordinary skill in the art to modify the teachings of the prior art to achieve the claimed combination. Accordingly, no reason has been clearly articulated as to why the prior art would have rendered claim 1 obvious to one of ordinary skill in the art. Therefore, a *prima facie* case of obviousness has not been established with respect to claim 1.

Independent claims 13, 15, and 28, although different in scope from claim 1, are allowable for at least reasons similar to those presented above with respect to claim 1. In addition, claims 3-12, 18-27, and 30-46 are allowable at least due to their dependence from an allowable independent claim. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of claims 1, 3-13, 15, 18-28, and 30-46 under 35 U.S.C. § 103(a).

III. Rejection of Claims 2, 17, and 29 under 35 U.S.C. § 103(a)

Applicants respectfully traverse the rejection of claims 2, 17, and 29 under 35 U.S.C. § 103(a) as being unpatentable over *Ohran* in view of *Bridge* and *Cabrera*.

Claims 2, 17, and 29 depend from claims 1, 15, and 28, respectively. As discussed above, *Ohran* and *Bridge* fail to teach or suggest "determining whether an identifier (ID) of the data object is stored in a transactional lock object," "when the ID is not stored in the transactional lock object, storing the ID in the transactional lock object," "determining whether the ID is stored in a permanent lock object," and "when the ID is not stored in the permanent lock object, storing the ID in the permanent lock object," as recited in claims 1, 15, and 28, and required by claims 2, 17, and 29.

Regardless of whether the Examiner's characterization of *Cabrera* in the Final Office Action is correct, to which Applicants do not concede, *Cabrera* fails to teach or suggest "determining whether an identifier (ID) of the data object is stored in a transactional lock object," "when the ID is not stored in the transactional lock object, storing the ID in the transactional lock object," "determining whether the ID is stored in a permanent lock object," and "when the ID is not stored in the permanent lock object,

storing the ID in the permanent lock object,” as recited in claims 1, 15, and 28, and required by claims 2, 17, and 29. *Cabrera* thus fails to cure the deficiencies of *Ohran* and *Bridge*.

For at least the foregoing reasons, the scope and content of the prior art have not been properly determined, and the differences between the prior art and claims 2, 17, and 29 have not been properly ascertained. Moreover, the Examiner has not identified any factors that would motivate one of ordinary skill in the art to modify the teachings of the prior art to achieve the claimed combination. Accordingly, no reason has been clearly articulated as to why the prior art would have rendered claims 2, 17, and 29 obvious to one of ordinary skill in the art. Therefore, a *prima facie* case of obviousness has not been established with respect to claims 2, 17, and 29. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of claims 2, 17, and 29 under 35 U.S.C. § 103(a).

CONCLUSION

Applicants respectfully request that the Examiner enter the amendments under 37 C.F.R. § 1.116, placing the pending claims in condition for allowance. Applicants further submit that the entry of the amendments would place the application in better form for appeal, should the Examiner dispute the patentability of the pending claims.

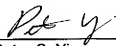
In view of the foregoing, Applicants respectfully request reconsideration of this application and timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

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By:  _____
Peter C. Yi
Reg. No. 61,790
202.408.4485